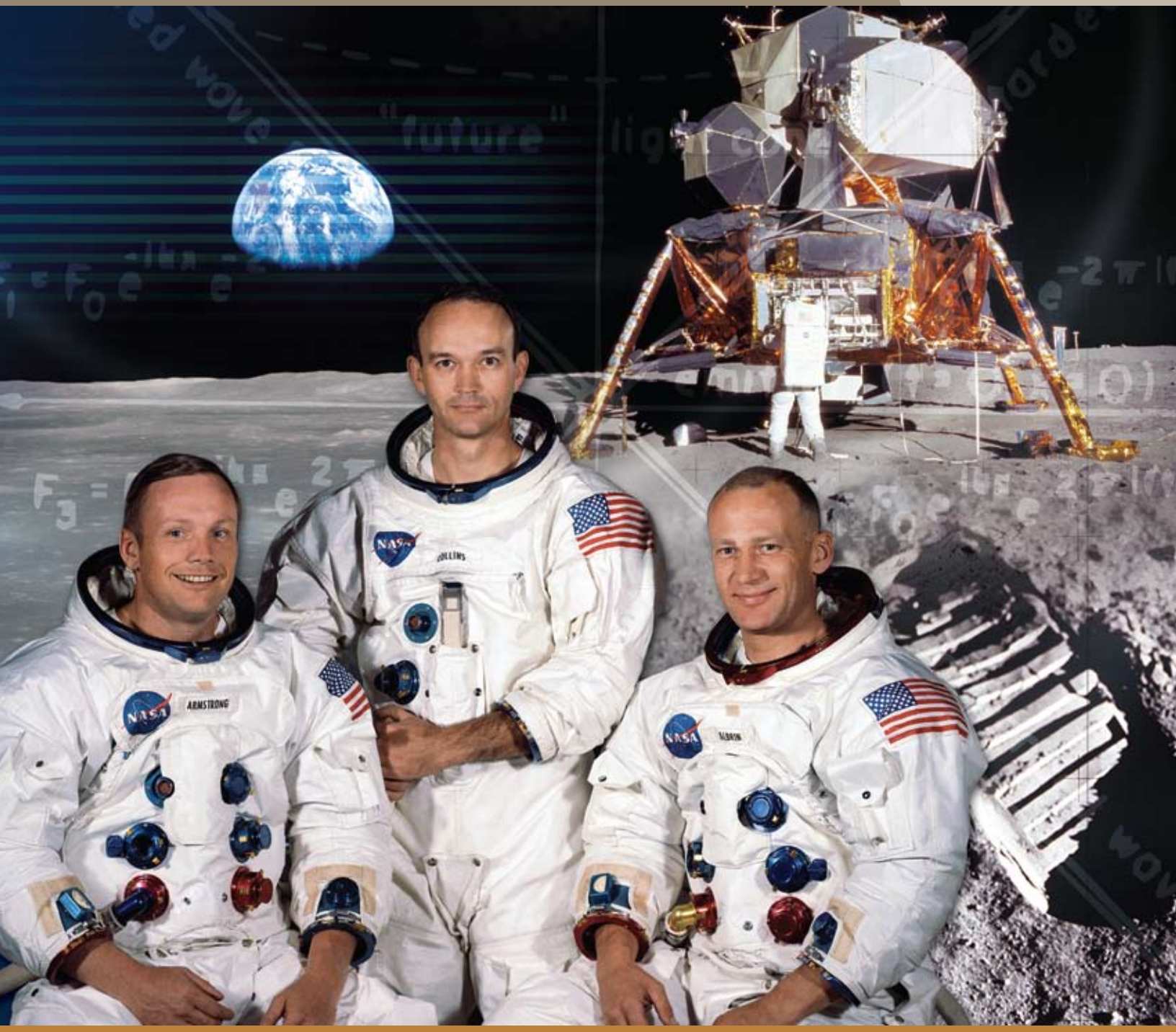
National Aeronautics and Space Administration

Roundup

Lyndon B. Johnson Space Center

July 2009



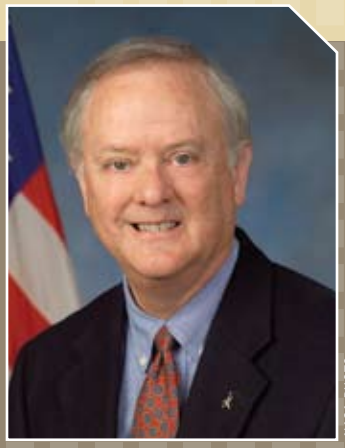
Apollo 40th Anniversary

Guest Column
An Apollo Reflection

NASA PHOTO S125-E-007221

On the cover:

The Apollo 11 crew, from left to right: Neil Armstrong, Michael Collins and Edwin "Buzz" Aldrin Jr.



NASA PHOTO

J. Milt Heflin
Associate Director (Technical)

About *two percent* of today's Johnson Space Center workforce was working here when we landed on the moon for the first time. That means a bunch of us weren't, but that doesn't make any difference. With the 40th anniversary of Apollo 11, all of us should pause and ponder this historic event; not to dwell on the past, but to again anticipate the spirit of the remarkable journey of leaving lower-Earth orbit.

I was in the Landing and Recovery Division riding recovery ships during the splashdowns of Apollo. My first time experiencing this was Apollo 8 (December 1968) while aboard the *USS Yorktown*. The last time was (July 1975) for the Apollo-Soyuz splashdown aboard the *USS New Orleans*. In between, I enjoyed this wonderful experience six other times while aboard aircraft carriers *Princeton*, *Ticonderoga* and *New Orleans*. For Apollo 11, I met the USS Hornet in *Pearl Harbor* as a member of the team responsible for preparing the Command Module *Columbia* for air transport to Ellington and to the Lunar Receiving Laboratory here at JSC.

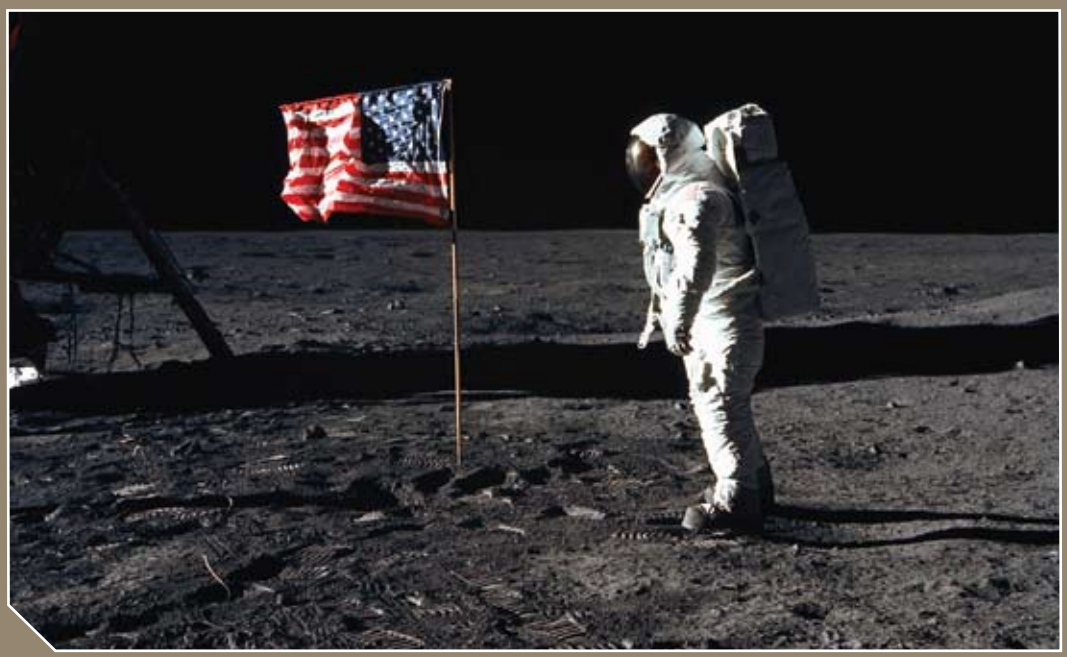
Since then, I've spent a lot of time on the third floor of Building 30M in a room I refer to as "The Cathedral of Manned Spaceflight Operations." Chris Kraft, manned spaceflight's first flight director, once described the room as "This Palace." Let me take you back there, 40 years ago.

Four days after the Apollo 11 launch, Neil Armstrong and Buzz Aldrin climb into the lunar module *Eagle* and begin their descent to the surface of the moon. During the final few minutes of the descent toward the Sea of Tranquility, *Eagle's* computer sounded several alarms. In each case, Guidance determined the computer was working harder than it wanted to, but was doing what it needed to do. Three minutes prior to landing with another alarm, Guidance quickly responded, "We're GO Flight!" With *Eagle* low on fuel, Armstrong and Aldrin searched for a safe landing spot. On July 20, 1969, as the world held its collective breath, we heard, "Houston, Tranquility Base here. The *Eagle* has landed."

As we celebrate the past, we must look forward knowing that the skills, motivation and dedication that enabled this great moment continues to live in the hearts and souls of the team that is still GO to continue this noble enterprise. We are not finished.

Photo of the month:

Astronaut Edwin E. Aldrin Jr., Lunar Module pilot of the first moon landing mission, poses for a photograph beside the deployed United States flag during an Apollo 11 spacewalk.



NASA PHOTO AS11-40-5874

Rock Solid

Johnson Space Center's Lunar Sample Lab turns 30

By Bill Jeffs

A one-of-its-kind facility that preserves and protects a national treasure marks a key anniversary this month as it gets readied for future deliveries from the moon.

The Lunar Sample Laboratory Facility in Building 31N at Johnson Space Center is NASA's chief repository for materials returned from the moon during the Apollo era. It was dedicated on July 20, 1979, after two years of construction. The two-story, 14,000-square-foot facility provides permanent storage of the lunar sample collection in a physically secure and non-contaminating environment.

Between 1969 and 1972, six Apollo missions brought back 842 pounds of lunar rocks, core samples, pebbles, sand and dust. The spaceflights returned 2,200 separate samples from six different exploration sites. These precious lunar materials are 3.1 to 4.4 billion years old.

With 14 percent of the collection in remote storage and 11 percent of the collection being used for scientific and education purposes, 75 percent of the 842-pound collection, most in pristine condition, is stored in the Lunar Sample Laboratory Facility. The facility has room to store many more lunar samples. In the next decade, samples that are brought back from the moon will be processed and curated in the lab.

"The facility was incredibly well designed," said Dr. Gary Lofgren, curator of the Lunar Sample Laboratory Facility and a planetary scientist in JSC's Astromaterials Research and Exploration Science (ARES) Directorate. "There were several National Academy of Science members on the committee that laid out the science requirements for the building and reviewed designs to ensure their inputs were implemented. They anticipated every contingency you can imagine to safeguard the samples."

In recent years, the facility has undergone extensive renovations, including adding new security monitors, replacing the air handler, and the construction of a new liquid nitrogen tank and supporting structures located outside the facility.

Members of JSC's Astromaterials Acquisition and Curation Office within ARES curate the lunar collection. They keep the collection in pristine condition while making the samples available to approved scientists, engineers and educators. Unspoiled lunar samples are stored and handled in stainless steel cabinets purged by high-purity nitrogen gas.

The lab allocates about 300 samples each year for scientific research and engineering studies. Today, about 90 active lunar principal investigators worldwide, mainly from the university community, have four percent of the collection on loan. Investigations focus on three main topics: comparative planetology, the history of the planets and investigating the collision theory for the origin of the moon.

The engineering community focuses on the physical properties in the samples.

"We now are convinced we have samples from Mars in the form of meteorites that have come to Earth," Lofgren said. "We have samples from the moon, and we have, of course, samples from Earth. Also, we have samples of meteorites that preceded the formation of the planets. So, we have samples from four different planetary sources."

The origin of the moon is being revealed with the study of lunar samples. The collision theory, supported by most planetary scientists, holds that the moon formed from debris ejected from the Earth when a large object, possibly as large as Mars, crashed into the Earth. Simulations of this scenario show that energy from such a collision produced a stream of broken and vaporized rock, and the moon formed from this material.

Much has been learned by studying the samples, but more remains to be discovered. Future return missions to gather new samples will be welcomed by the scientific community.

"We have samples from only six lunar sites," said Lofgren. "Just imagine if you had samples from only six places on Earth—there would be a lot you would not know about. Specifically, we still don't understand the full breadth of the evolution of the moon. We need a broader range of samples to date to capture the history of the evolution of the planet."

For more information on NASA's lunar samples and the lab, visit: http://curator.jsc.nasa.gov/lunar/index.cfm

NASA/PHOTO jsc2004-00014

Andrea Mosie, principal scientist with GeoControl Systems, Inc., holds a lunar sample returned by the crew of Apollo 15. This vesicular mare basalt was picked up by astronaut Jim Irwin near the edge of Hadley Rille in the area called "the Terrace." This rock is approximately 3.4 billion years old.

Protecting those who went where **no** man had gone before

By Neesha Hosein

Importance of the Apollo Lunar Quarantine Program

On July 24, 1969, the first manned mission to land on the moon, Apollo 11, brought home the first lunar material to Earth—a simple notion, but not a simple process.

Procedures were developed to ensure the safe handling of not only the precious material and moon-touched equipment, but the people in close contact with it.

A special subcommittee of the Space Science Board of the National Academy of Sciences was assembled in 1963 to brainstorm the needs for handling material and personnel of returning moon missions.

The outcome was the organization of the Apollo Lunar Quarantine Program, which became the joint responsibility of NASA and the Interagency Committee on Back-Contamination (ICBC).

The ICBC charter declared its purpose to: protect the public's health, agriculture and other living resources; protect the integrity of the lunar samples and the scientific experiments; and ensure that the operational aspects of the program were least compromised.

NASA/PHOTO S69-40306

The crewmen of the historic Apollo 11 lunar landing mission are seen dining in the Crew Reception Area of the Lunar Receiving Laboratory in Building 37, Manned Spacecraft Center. Left to right are astronauts Edwin E. Aldrin Jr., Michael Collins and Neil A. Armstrong.

Quarantine Imperative Immediately Post-landing

The focus of the quarantine program involved biological containment of the crewmen, lunar samples and other lunar-exposed material. The program also emphasized the importance that quarantine immediately follow return to Earth.

The ICBC was divided into three phases: in-flight procedures; spacecraft and crew recovery transport to Johnson Space Center; and quarantine operations in the Lunar Receiving Laboratory (LRL).

According to the reports, "by observation of plant and animal diseases, it was determined that most terrestrial disease agents were capable of invading a host and causing evident disease symptoms within 21 days after exposure of the host. Most disease agents capable of causing epidemic or rapidly spreading diseases were sufficiently virulent to be transmitted in less than 21 days. The ICBC decided that a crew quarantine period of at least 21 days should be required after each Apollo mission."

"We developed simulated 'spill' conditions in which the Brown & Root Health and Safety Office personnel would practice decontamination techniques to neutralize the dangerous conditions which could exist with the actual lunar material," said Gary McCollum, former quality control officer in the lab.

Intensive medical examinations of the flight crew members during quarantine determined if any medical problems existed as a result of exposure to lunar material.

Man Touches the Moon

Terry Slezak is the first man to touch moon dust with his bare hands, without ever having left the planet. The incident occurred while Slezak, already stationed in quarantine quarters prior to crew return, prepared to process some film from the Apollo 11 mission.

NASA/PHOTO S69-40205

Apollo 11 astronauts (left to right) Edwin E. Aldrin Jr., lunar module pilot, Michael Collins, command module pilot, and Neil A. Armstrong, commander, go through their post-flight debriefing session on July 27, 1969.

"When I was going through them, I came to this one and I pulled this magazine out and it's all covered with black sooty-looking dust," Slezak said. "It was very abrasive to the touch. I said, well, that's moon dust. That's the only place it's been. So I held my hands up and they shot pictures and the next day I found my picture on the front page of the newspaper. That is how I became the first man on Earth to touch moon dust with his bare hands."

The Apollo 11 crew, which included Commander Neil A. Armstrong, Command Module Pilot Michael Collins and Lunar Module Pilot Edwin E. Aldrin Jr., were released from the Crew Reception Area to resume daily crew activities and allowed to rejoin their families after 21 days of quarantine in the LRL and satisfactory medical results.

NASA **Alumni League** maintains connection with retirees

By Neesha Hosein

The NASA Alumni League (NAL) is a national organization that provides an outlet for retirees to stay connected with NASA and one another through individual chapters.

The NAL has three goals: communicate with the NASA community; aid the NASA community with its comprehension of engineering and science; and encourage members to participate in community service which, in turn, promotes dedication to the pursuit of scientific knowledge that benefits all humankind.

"The NASA Alumni League was formed after the *Challenger* accident in January of 1986, and there were a lot of questions," said Norman Chaffee, NAL secretary and retired Johnson Space Center engineer.

"Several NASA veterans got together in the Washington area and decided to create a formal organization for NASA veterans. Then the centers formed individual chapters, (including) JSC."

The JSC NAL hosts several events each year, such as the Spring Social and Dinner on May 14 in the Gilruth Ballroom. The event featured a talk by General Joe Engle. Engle is a retired NASA test pilot and astronaut who flew two Approach and Landing Test flights on the shuttle, followed by two shuttle missions as commander. At the social, Engle gave a presentation titled "Your X-15: Its Heritage and Legacy."

The JSC NAL officers include: President Frank Hughes; Vice President Chester Vaughn; Secretary Norman Chaffee; and Treasurer Mary Stang. The board of directors includes: Marianne Dyson, John Lee, Gary Johnson, Andrew Hobokan, Don Nelson and Guy Thibodeaux.

NASA/BLAIR JSC2009E120544

General Joe Engle, a retired NASA test pilot, gives a presentation titled "Your X-15: Its Heritage and Legacy" at the JSC NAL Social and Dinner in May.

NASA/BLAIR JSC2009E120529

Attendees enjoy dinner and socializing at the NASA Alumni League Spring Social before watching a presentation.

"I have had a great time in the NAL," said Frank Hughes, JSC NAL chairman. "We have group meetings twice a year in the fall and spring. The board meets to decide our other activities. We give money to charities here in the Bay Area. We send school groups to either Space Center Houston or to the Challenger Center downtown at the Houston Museum of Natural Science."

Hughes said the members of the NAL represent a huge reservoir of knowledge concerning all of the space programs in the past.

"We try to make that knowledge available to the current NASA personnel through consultations and other meetings," Hughes said. "In collaboration with Chief Knowledge Officer Jeanie Engle, we have started a set of storytelling meetings. We did a successful one on the propulsion systems for Apollo and space shuttle in April. We had standing room only in that conference room."

As NASA looks to the future and seeks out our desolate moon, it will continue to rely on the sage advice that only space veterans can offer.

NASA celebrates 40 years after the dramatic mile

"Now it is time to take longer strides—time for a great new American enterprise—time for this nation to take a clearly leading role in space achievement, which in many ways may hold the key to our future on Earth …

I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the earth. No single space project in this period will be more impressive to mankind, or more important for the long-range exploration of space; and none will be so difficult or expensive to accomplish."

– President John F. Kennedy, May 25, 1961

NASA/PHOTO S69-31739

Crew: Neil Armstrong, Michael Collins, Edwin "Buzz" Aldrin Jr.

Liftoff: July 16, 1969, at 8:32 a.m. CDT, Kennedy Space Center, Fla., via Saturn V Rocket

Lunar Landing: July 20, 1969, at 3:18 p.m. CDT, Sea of Tranquility

Lunar Liftoff: July 21, 1969, 12:54 p.m. CDT

Splashdown: July 24, 1969, 11:49 a.m. CDT, Pacific Ocean

Duration: Eight days, three hours, 18 minutes

July 20, 1969: No Ordinary Day at the Office

Flight Director Gene Kranz describes the palpable excitement in Mission Control during the moments before and after touchdown on the moon, when a vision for greatness came to life before the eyes of the world.

"Everybody in the room is deathly silent except for what is on the voice loops, and we're only listening to Bob Carlton's call. The last call was, '60 seconds,' and the next call was going to be '30 seconds.' So I advised the controllers no more calls, because we're now operating in what we call negative reporting. We're not saying a word to the crew, because they're just busier than hell right now, and the only reason for us to abort is fuel.

"Now Carlton hits 30 seconds. Now we're 30 seconds off the surface of the moon, and very—I mean, incredibly rapidly I go through the decision process. No matter what happens, I'm not going to call an abort. The crew is close enough to the surface I'm going to let them give it their best shot.

"At the same time, the crew identifies they're kicking up some dust, so we know we're close, but we don't know how close because we don't know at what altitude they'd start kicking up the dust. And then we're to the point where we're mentally starting, waiting for the 15-second call, and Carlton was just ready to say, '15 seconds.' And then we hear the crew saying, 'Contact.'

"There's nothing in training that ever prepares you for that second, because the viewing room behind me starts cheering. Our instructors, which are over in the Sim Sup area (on the right), they start cheering, but we've got to be cool because we have to now go through all of the shutdown activity. We have to go through a series of what we call 'stay/no stay' decisions, because 40 seconds after we've touched down on the moon, we have to be ready to lift back off again.

"I had to get going on the stay/no stay. I just rapped my arm down on the console there, just absolutely frustrated. I broke my pencil; the pencil flies up in the air. I got back on track and started, 'Go. Okay. All flight controllers stand by for T-one stay/no stay.' Then, as soon as we finished that, we had another; I think it was 10 or 12 minutes later, and these were opportunities for liftoff and go back up and immediate rendezvous. Once we went beyond T-two, then we had to go through a T-three.

"While we're doing all this stuff, Charlie Duke's still talking to the crew, saying, 'Eagle, you know, you've got a bunch of controllers down here about ready to turn blue.' Well, the fact is, I don't think any of us breathed for that last 60 seconds."

Excerpted from interviews conducted for the Johnson Space Center Oral History Project. For the complete transcripts and more, go to: http://www.jsc.nasa.gov/history

NASA/PHOTO AS11-44-6598

NASA/PHOTO AS11-44-6585

NASA/PHOTO AS11-37-5437

estone in the Sea of Tranquility

By Catherine Ragin Borsché

NASA/PHOTO S69-39960

Liftoff

July 16, 1969: A fish-eye lens view of the launch of the huge, 363-foot-tall Apollo 11 (Spacecraft 107/Lunar Module 5/Saturn 506) space vehicle from Pad A, Launch Complex 39, Kennedy Space Center. Liftoff occurred at 8:32 a.m. CDT. Aboard the Apollo 11 spacecraft were astronauts Neil A. Armstrong, commander; Michael Collins, command module pilot; and Edwin E. Aldrin Jr., Lunar Module (LM) pilot. Apollo 11 was the United States' first lunar-landing mission.

NASA/PHOTO AS11-37-5445

Separation

July 20, 1969: The Apollo 11 Command and Service Modules (CSM) are photographed from the LM in the moon's orbit during the Apollo 11mission. The lunar surface below is in the north central Sea of Fertility. About half of the crater Taruntius G is visible in the lower left corner of the picture. Part of Taruntius H can be seen at lower right.

Epic

July 20, 1969: A close-up view of an astronaut's boot print in the lunar soil.

NASA/PHOTO AS11-40-5878

Mobilize

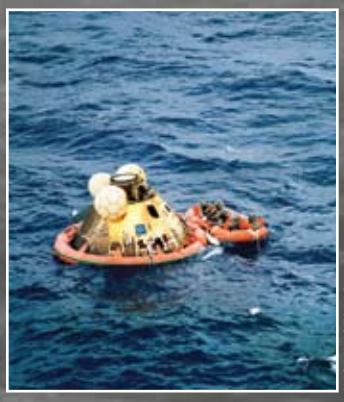
July 20, 1969: Astronaut Edwin E. Aldrin Jr., LM pilot, walks on the surface of the moon near the leg of the "Eagle" during the Apollo 11 spacewalk. Commander Neil A. Armstrong took this photograph with a 70mm lunar surface camera.

NASA/PHOTO AS11-40-5903

NASA/PHOTO AS11-44-6642

Rendezvous

July 21, 1969: The Apollo 11 LM ascent stage, with astronauts Neil A. Armstrong and Edwin E. Aldrin Jr. aboard, is photographed from the CSM during rendezvous in lunar orbit. The LM was making its docking approach to the CSM. Astronaut Michael Collins remained with the CSM while the other two crewmen explored the moon's surface. The large, dark-colored area in the background is Smyth's Sea. The Earth rises above the lunar horizon.



NASA/PHOTO AS11-37-5445

Splash!

July 24, 1969: The three Apollo 11 crewmen await pickup by a helicopter from the *USS Hornet*, prime recovery ship for the historic mission. The fourth man in the life raft is a United States Navy underwater demolition team swimmer. Apollo 11 splashed down at 11:49 a.m. CDT, about 812 nautical miles southwest of Hawaii.

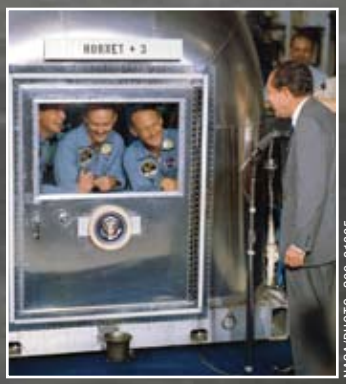
Pandemonium

July 24, 1969: Overall view of Mission Control, showing the flight controllers celebrating the successful conclusion of Apollo 11.

NASA/PHOTO S69-40022

Mr. President

July 24, 1969: United States President Richard M. Nixon was in the central Pacific recovery area to welcome the Apollo 11 astronauts aboard the *USS Hornet*. Already confined to the Mobile Quarantine Facility are (left to right): Neil A. Armstrong, commander; Michael Collins, Command Module pilot; and Edwin E. Aldrin Jr., LM pilot.



NASA/PHOTO S69-21965

Transformations

By Donna P. Anderson

If you move all the points on a geometric figure according to set rules, you get a new geometric figure. The original figure is the object and the new figure is called the image. The rule for obtaining the image from the object is the transformation.

Periodically, we plan to share some Johnson Space Center images that are being created through transformations of original objects, processes and procedures. Exciting transformations are all around us. Let's take a look at one very recent transformation—JSC's participation as award sponsor in the 2009 Rice Alliance Business Plan Competition.

A new way to bridge to technology solutions

The 2009 Rice Alliance Business Plan Competition is one of the world's richest and largest business-plan competitions, in which JSC sponsored four awards for $20,000 each at this year's event.

Co-sponsored by the Innovation Partnerships Office, three awards were given by the Engineering Directorate and one by the Space Life Sciences Directorate. The competition offered 42 teams from across the globe the chance to pitch their new technology plans to more than 200 judges.

This marks the second year JSC sponsored an award and the first year of Engineering's involvement.

According to Dr. Jeff Davis, director of JSC's Space Life Sciences Directorate, starting new alliances and collaborations will drive innovations to NASA. The catalyst for the change is the reality that Research and Development (R&D) budgets were cut, and new strategies need to be developed.

Leonard Yowell, Space Life Sciences innovation lead, and Elizabeth Richard, Space Life Sciences senior strategist, said it is a cultural change to look for "solution seekers."

"By partnering with the Rice Alliance Competition, NASA is not only supporting the commercialization of promising technologies, but more importantly, projecting a technology 'wish list' to a highly innovative and motivated assemblage of young entrepreneurs," said William Buras, R&D director in Space Life Sciences and one of the 20 judges. "NASA's presence at this event signaled to me that there is some very forward thinking going on in the life sciences areas at JSC."

In all, 24 business plans were reviewed by more than 45 JSC team members, including 16 technical experts from Engineering and judges from Space Life Sciences and the Innovative Partnerships Office.

"NASA personnel involved in the judging receive an exclusive view of venture capitalists technology evaluations while they sit side by side with them and other technical and business experts during the business plan evaluation sessions," said Sonia Hernandez-Moya of the Innovative Partnerships Office, who coordinated the center's efforts.

Doug Holland, Electronics engineer and one of nine Engineering judges, said, "We learned of a variety of technology developments that may have applications to the NASA mission. We also witnessed avenues for NASA to promote innovative work being accomplished and in a timely way."

To read more about the competition and the four NASA prize winners and their promising technologies, visit: http://alliance.rice.edu/alliance/RBPC.asp and http://www.nasa.gov/centers/johnson/news/releases/2009/J09-009.html

NASA/PHOTO s125e0075547

Earthly Scribbles

Low-level winds rushing over the Cape Verde Islands off the coast of northwestern Africa created these cloud vortex streets. They share this scene with the top of the Hubble Space Telescope, locked down in the cargo bay of the Space Shuttle* Atlantis *during STS-125 on May 15.

Inclusion and Innovation Council

Innovation is our middle name

By Catherine Ragin Borsché

There are organizations people talk about … and then there are organizations people rave about.

While Johnson Space Center is a nonprofit government agency, the Inclusion and Innovation (I&I) Council, chartered by JSC Director Mike Coats, recognizes the value in adopting industry best practices to revitalize our work environment.

Last August, seven I&I Engagement Teams were formed, and each was asked to develop recommendations for specific areas to improve JSC. Some of these topics included Barrier Analysis, Mentoring and Information Technology (IT).

Each team included contractors and civil servants and was designed to bring together people with diverse backgrounds, skills and perspectives to explore ways to enhance the JSC environment, making it a more inclusive and better place work. The teams concluded work in mid-January and reported their recommendations at a Joint Leadership Team (JLT)/Employee Leadership Team (ELT) meeting. A group of leaders and employees from the I&I Council and the JLT then reviewed and integrated the recommendations. Many ideas are being worked right now by JSC organizations, and others have been adopted by the JLT/ELT as projects that can be jointly executed to benefit the entire JSC team. The Barrier Analysis team recommended four pathways to overcoming barriers that will move JSC to an even more open, innovative and collaborative state.

Cultural barriers play a role in how we perceive the work atmosphere.Stagnant management styles, "this is how we've always done it" thinking, as well organizational walls and complex processes can make it difficult to collaborate and innovate.

"Perception is key," said Sharon Thomas of the Barrier Analysis Engagement Team. "The intent is to foster openness."

Every employee has to believe that "their contributions (are) valued, regardless of badge, demographical differences or differences of opinion," Thomas said.

Mentoring can also be an instrument of change. The Mentoring Engagement Team made several suggestions to enhance the JSC Mentoring Program, and the Human Resources Office is making it happen.

"Revamping the existing JSC Mentoring Program will increase its visibility, add structure and improve the mentor/protégé matching process," said Keith Beckmann of the Mentoring Engagement Team. The team thought Star Wars' Yoda would be a good way to brand the mentoring program.

"Our team thinks of Yoda as being the ultimate mentor. We believe JSC is loaded with 'Yodas,' and we hope (to) energize employees to get involved in mentoring and reinvesting in the center's workforce," said Beckman.

See how the Mentoring Team's suggestions are being incorporated at: http://mentoring.jsc.nasa.gov/Splash/Splash.htm

The teams brought forth recommendations that include more than just changing internal workplace dynamics. Visible changes will soon be on the way.

The IT Engagement Team came up with creating a JSC Collaboration Center. The stars aligned to support their suggestion, with the planned renovation of the Building 3 café presenting an opportunity to incorporate fresh ideas. An area in the dining room will be converted into a place where people from different disciplines can meet and team up. The center will be equipped with Wi-Fi, white boards and a 52-inch monitor. By welcoming diverse groups to a central location and making it easier to connect, creativity can be more easily fostered. The renovations are to be completed by August 2010.

JSC is an exciting place to work, and we can tap into our potential by understanding what makes us different from the rest.

"Ultimately, it's about investing in and unlocking the broad range of talent inherent in the center's most important resource," Thomas said, "the people—the true engine of innovation."

Inclusion and Innovation Engagement Teams

- Information Technology
- Recruiting and Ultimate Employee Experience
- Communications
- Mentoring
- Work/Life Fit
- Awards and Recognition
- Barrier Analysis

To get more detailed information on each team's recommendations, visit: http://projects.jsc.nasa.gov/ii/EngagementTeams/default.aspx

open your mind.

innovation & inclusion

Spotlight on the Senior Secretarial Council

The Senior Secretarial Council (SSC) was formed to provide guidance and support by advocating and promoting the professional development and personal growth of the Johnson Space Center secretarial community. The SSC endeavors to build and maintain a mutual working relationship with JSC management through open communication.

NASA/STAFFORD JSC2009E118605

The JSC Senior Secretarial Council stays on top of future development and observes the Lunar Electric Rover.

Q: Coolest part of your job?
A: The coolest part of my job is having a boss like Steve Altemus, director of Engineering. He offers me the opportunity to see equipment like the Lunar Electric Rover (LER), which was designed, developed and built within Engineering and will ultimately support human spaceflight. The ride and tour of the LER was a fantastic experience.
– Dianne Milner/EA, directorate secretary, Engineering

Q: What would you be doing if you weren't in your current job at JSC?
A: I would establish a nonprofit organization for inner-city youth and educate them in music, dance, theater and cultural arts.
– Lena Pete/AJ, directorate secretary, Office of Equal Opportunity and Diversity

Q: What would people be surprised to know about you?
A: I am a mother of two sets of twin girls.
– Sonia Vasquez/ZA, secretary, Constellation Program

Q: What is your favorite quote or motto?
A: "Some people dream of success, while others wake up and work hard at it." – author unknown
– Karen Gabel/ZA, secretary, Constellation Program

Q: What quality do you admire most in people?
A: I admire integrity, selflessness, generosity and those who are polite and respectful.
– Lisa Navy, Office of the Center Director

Q: What does JSC mean to you?
A: JSC means a lifetime to me (25 years, to be exact), but I would not want to work anywhere else. The people make JSC what it is, and I could not ask for more caring, more friendly, and of course, more intelligent coworkers.
– Linda Turnbough/XA, Extravehicular Activity Office

Q: What do you look forward to most at NASA?
A: I look forward to coming to a job that I know is truly making a difference in our world. To say that I get to support the best organization on the planet is exciting. I get to work at NASA—how great is that?
– Jessica Cordero/AP, Office of Communications and Public Affairs

Q: What is your best memory at JSC
A: The mood at JSC when STS-1 launched with John Young and Bob Crippen, and how everyone was so excited and energized because of such a great accomplishment!
– Monica Ruiz-Cortez/AD, directorate secretary, External Relations Office

WANTED!

Do you know a JSC colleague or team that does something extraordinary on or off the job? Whether it's a unique skill, interesting work, special professional accomplishment, remarkable second career, hobby or volunteerism, your nominee(s) may deserve the spotlight!

The Roundup shines the light on one special person or team each month, chosen from a cross section of the JSC workforce. To suggest "Spotlight" candidates, send your nomination to the JSC Roundup Office mailbox at jsc-roundup@mail.nasa.gov. Please include contact information and a brief description of why your nominee(s) should be considered.

Center Scoop

LEAN SIX SIGMA GREEN BELTS

Johnson Space Center's first Lean Six Sigma (LSS) Green Belt Class was held March 18 to 22. JSC's newest Green Belts are learning to become LSS practitioners, who will carry out improvement events and participate on LSS teams. LSS is a business-improvement technique that combines tools from both Lean Manufacturing and Six Sigma. Lean Manufacturing focuses on eliminating waste and traditional Six Sigma focuses on improving quality. By combining the two, the result is better quality, faster.

Green Belt is the first level of training and certification in LSS. This one-week class provided students with the necessary tools to participate on LSS teams and apply LSS to their own projects and work areas. Additionally, Green Belts can serve as facilitators and part-time leaders of process improvement activities while under the guidance of a Black Belt. Once Green Belt certified, students may choose to advance to the Black Belt course— the next level of training and certification.

For more information, contact Patty Fundum at patricia.s.fundum@nasa.gov or 256-544-8436.

NASA/PHOTO

JSC's first class of Lean Six Sigma Green Belts.

NASA/PHOTO s125e007597

GET SUITED FOR EXPLORATION

NASA continues to forge a robust space exploration program, and you can be a part of it—one step, one "groove" at a time. Upload your photo and show friends and family your space moves. "Space your face" at: http://spaceyourface.nasa.gov/

WANT TO BUILD YOUR OWN SOLAR CAR?

How about letting a fifth-grader show you how it's done? Recently, fifth-graders at five local elementary schools designed and built their own solar cars with the help of mentors from JSC, including Mike Ewert, Exploration Life Support deputy project manager and member of JSC's Sustainability Team. The project started in the JSC area in 1996. Ewert heard about the Solar Power-up Project through the Texas Solar Energy Society.

"We believe it teaches students not only about solar energy, but about engineering in a hands-on way, and about teamwork and being able to create something yourself," Ewert said.

The solar car activities take place one week each spring, and students get in teams of four. To accommodate the week's activities, class schedules adjust so that each afternoon they can devote a couple of hours to the project. Teams are graded on their cars, with 20 percent of the grade going toward the design, teamwork, presentation, appearance and race.

Ewert and others who volunteer from JSC mentor the students and watch their progress, but the teams design and build their own cars. At the end of the week, each team races their car against the others until a winner is declared. While some take off and zip down the raceway, other teams' cars struggle to get to the end due to technical or design issues.

But whether they win or lose, each student gains a better understanding of the scientific method, as well as problem-solving.

To learn more about the Solar Power-up Project and what to expect for next year, e-mail Mike Ewert at michael.k.ewert@nasa.gov.

PHOTO MEGAN EWERT

A fifth-grader claps with encouragement as the team's car takes off.

Roundup

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To the moon!

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Off to the Moon
NASA's LRO and LCROSS spacecraft on top of the Atlas V rocket launch from Complex 41 on Cape Canaveral Air Force Station.

NASA's Lunar Reconnaissance Orbiter (LRO) and Lunar Crater Observation and Sensing (LCROSS) spacecraft are on their way to the moon, although they will use vastly different methods to study the lunar environment.

LRO will go into orbit around the moon, turning its suite of instruments toward the moon for thorough studies. The spacecraft also will be looking for potential landing sites for astronauts.

LCROSS, on the other hand, will guide an empty upper stage on a collision course with a permanently shaded crater in an effort to kick up evidence of water at the moon's poles. LCROSS itself will also impact the lunar surface during the course of its study.

Liftoff occurred at 4:32 p.m. CDT on June 18. Mission managers used the last launch opportunity due to storms surrounding the launch site.

Participate in Apollo 40th Anniversary center and community events. Find out more at:

http://www.nasa.gov/centers/johnson/events/apollo40yrs_events.html